

**This Page is Inserted by IFW Indexing and Scanning  
Operations and is not part of the Official Record**

**BEST AVAILABLE IMAGES**

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images include but are not limited to the items checked:

- ☐ BLACK BORDERS
- ☐ IMAGE CUT OFF AT TOP, BOTTOM OR SIDES
- ☐ FADED TEXT OR DRAWING
- ☐ BLURRED OR ILLEGIBLE TEXT OR DRAWING
- ☐ SKEWED/SLANTED IMAGES
- ☐ COLOR OR BLACK AND WHITE PHOTOGRAPHS
- ☐ GRAY SCALE DOCUMENTS
- ☐ LINES OR MARKS ON ORIGINAL DOCUMENT
- ☐ REFERENCE(S) OR EXHIBIT(S) SUBMITTED ARE POOR QUALITY
- ☐ OTHER: \_\_\_\_\_

**IMAGES ARE BEST AVAILABLE COPY.**

As rescanning these documents will not correct the image problems checked, please do not report these problems to the IFW Image Problem Mailbox.

Welcome  
United States Patent and Trademark OfficeIEEE Xplore®  
1 Million Documents  
1 Million Users[Help](#) [FAQ](#) [Terms](#) [IEEE Peer Review](#)[Quick Links](#)[» Search Results](#)

## Welcome to IEEE Xplore

- ☐ Home
- ☐ What Can I Access?
- ☐ Log-out

## Tables of Contents

- ☐ Journals & Magazines
- ☐ Conference Proceedings
- ☐ Standards

## Search

- ☐ By Author
- ☐ Basic
- ☐ Advanced

## Member Services

- ☐ Join IEEE
- ☐ Establish IEEE Web Account
- ☐ Access the IEEE Member Digital Library

## IEEE Enterprise

- ☐ Access the IEEE Enterprise File Cabinet

Print Format

Your search matched **469** of **1074479** documents.A maximum of **500** results are displayed, **15** to a page, sorted by **Relevance** in **Descending** order.

## Refine This Search:

You may refine your search by editing the current search expression or entering a new one in the text box.

☐ Check to search within this result set

## Results Key:

**JNL** = Journal or Magazine   **CNF** = Conference   **STD** = Standard**1 A complex-number multiplier using radix-4 digits***Wei, B.W.Y.; He Du; Honglu Chen;*

Computer Arithmetic, 1995., Proceedings of the 12th Symposium on , 19-21 July 1995

Pages:84 - 90

[\[Abstract\]](#)   [\[PDF Full-Text \(380 KB\)\]](#)   **IEEE CNF****2 Adaptation of the Mactaggart and Jack complex multiplication algorithm for floating-point operators***Cosentino, R.J.; Vaccaro, J.J.;*

Computers, IEEE Transactions on , Volume: 41 , Issue: 10 , Oct. 1992

Pages:1324 - 1326

[\[Abstract\]](#)   [\[PDF Full-Text \(264 KB\)\]](#)   **IEEE JNL****3 Efficient complex matrix multiplication***Fam, A.T.;*

Computers, IEEE Transactions on , Volume: 37 , Issue: 7 , July 1988

Pages:877 - 879

[\[Abstract\]](#)   [\[PDF Full-Text \(264 KB\)\]](#)   **IEEE JNL****4 Fast algorithms for complex matrix multiplication using surrogates***Connolly, F.T.; Yagle, A.E.;*

Acoustics, Speech, and Signal Processing [see also IEEE Transactions on Signal Processing], IEEE Transactions on , Volume: 37 , Issue: 6 , June 1989

Pages:938 - 939

[\[Abstract\]](#)   [\[PDF Full-Text \(172 KB\)\]](#)   **IEEE JNL****5 A finite group of complex integers and its application to differentially coherent detection of QAM signals***Egri, R.G.; Horrigan, F.A.;*

Information Theory, IEEE Transactions on , Volume: 40 , Issue: 1 , Jan. 1994  
Pages:216 - 219

[\[Abstract\]](#) [\[PDF Full-Text \(360 KB\)\]](#) IEEE JNL

---

**6 A new implementation of complex number multiplier using RB representations**

*Guoping Wang; Tull, M.P.;*

Region 5 Conference: Annual Technical and Leadership Workshop, 2004 , 2 April 2004

Pages:77 - 79

[\[Abstract\]](#) [\[PDF Full-Text \(1415 KB\)\]](#) IEEE CNF

---

**7 Multilayer cellular algorithm for complex number multiplication**

*Markova, V.P.;*

Application Specific Array Processors, 1995. Proceedings., International Conference on , 24-26 July 1995

Pages:290 - 297

[\[Abstract\]](#) [\[PDF Full-Text \(420 KB\)\]](#) IEEE CNF

---

**8 The one over eight squared algorithm: a new way for computing convolutions and complex multiplications**

*Skavantzios, A.;*

Circuits and Systems, 1990., IEEE International Symposium on , 1-3 May 1990

Pages:61 - 64 vol.1

[\[Abstract\]](#) [\[PDF Full-Text \(260 KB\)\]](#) IEEE CNF

---

**9 Complex digital signal processing using quadratic residue number systems**

*Krishnan, R.; Jullien, G.; Miller, W.;*

Acoustics, Speech, and Signal Processing [see also IEEE Transactions on Signal Processing], IEEE Transactions on , Volume: 34 , Issue: 1 , Feb 1986

Pages:166 - 177

[\[Abstract\]](#) [\[PDF Full-Text \(1000 KB\)\]](#) IEEE JNL

---

**10 Implementation of 'multiply-add' FFT algorithms for complex and real data sequences**

*Lu, C.;*

Circuits and Systems, 1991., IEEE International Symposium on , 11-14 June 1991

Pages:480 - 483 vol.1

[\[Abstract\]](#) [\[PDF Full-Text \(264 KB\)\]](#) IEEE CNF

---

**11 Complex number multipliers**

*Pekmestzi, K.Z.;*

Computers and Digital Techniques, IEE Proceedings E [see also Computers and Digital Techniques, IEE Proceedings-], Volume: 136 , Issue: 1 , Jan. 1989

Pages:70 - 75

[\[Abstract\]](#) [\[PDF Full-Text \(364 KB\)\]](#) IEE JNL

---

**12 The modified quadratic residue number system (MQRNS) for complex high-speed signal processing**

Krishnan, R.; Jullien, G.; Miller, W.;  
Circuits and Systems, IEEE Transactions on , Volume: 33 , Issue: 3 , Mar 1986  
Pages:325 - 327

[\[Abstract\]](#) [\[PDF Full-Text \(336 KB\)\]](#) [IEEE JNL](#)

---

**13 Polynomial residue complex signal processing**

Skavantzios, A.; Stouraitis, T.;

Circuits and Systems II: Analog and Digital Signal Processing, IEEE Transactions on  
[see also Circuits and Systems II: Express Briefs, IEEE Transactions on] , Volume:  
40 , Issue: 5 , May 1993  
Pages:342 - 344

[\[Abstract\]](#) [\[PDF Full-Text \(228 KB\)\]](#) [IEEE JNL](#)

---

**14 Phase and amplitude phase restoration in synthetic aperture radar imaging**

Soumekh, M.; Choi, J.-H.;

Image Processing, IEEE Transactions on , Volume: 1 , Issue: 2 , April 1992  
Pages:229 - 242

[\[Abstract\]](#) [\[PDF Full-Text \(1124 KB\)\]](#) [IEEE JNL](#)

---

**15 A VLSI signal processor with complex arithmetic capability**

Barazesh, B.; Michalina, J.-C.; Picco, A.;

Circuits and Systems, IEEE Transactions on , Volume: 35 , Issue: 5 , May 1988  
Pages:495 - 505

[\[Abstract\]](#) [\[PDF Full-Text \(856 KB\)\]](#) [IEEE JNL](#)

---

[1](#) [2](#) [3](#) [4](#) [5](#) [6](#) [7](#) [8](#) [9](#) [10](#) [11](#) [12](#) [13](#) [14](#) [15](#) [16](#) [17](#) [18](#) [19](#) [20](#) [21](#) [22](#) [23](#) [24](#)  
[25](#) [26](#) [27](#) [28](#) [29](#) [30](#) [31](#) [32](#) [Next](#)

---

[Home](#) | [Log-out](#) | [Journals](#) | [Conference Proceedings](#) | [Standards](#) | [Search by Author](#) | [Basic Search](#) | [Advanced Search](#) | [Join IEEE](#) | [Web Account](#) | [New this week](#) | [OPAC](#)  
[Linking Information](#) | [Your Feedback](#) | [Technical Support](#) | [Email Alerting](#) | [No Robots Please](#) | [Release Notes](#) | [IEEE Online Publications](#) | [Help](#) | [FAQ](#) | [Terms](#) | [Back to Top](#)

Copyright © 2004 IEEE — All rights reserved

L Number	Hits	Search Text	DB	Time stamp
3	501	708/501,495,404,300.ccls. and complex	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/09/27 10:07
4	5663	((("2" or two) adj (cycle\$1 or clock\$1 or period\$1)).ti. or (("2" or two) adj (cycle\$1 or clock\$1 or (period\$1)).clm. or ("2" or two) adj (cycle\$1 or clock\$1 or period\$1)).ab.) and ((multiplier\$1 or multiplication or multiplying or multiply) and complex and (real or re) and (imaginary or img) and 708/\$.ccls.) and (708/501,495,404,300.ccls. and complex)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/09/27 10:08
5	3	(708/501,495,404,300.ccls. and complex) and (((("2" or two) adj (cycle\$1 or clock\$1 or period\$1)).ti. or (("2" or two) adj (cycle\$1 or clock\$1 or (period\$1)).clm. or ("2" or two) adj (cycle\$1 or clock\$1 or period\$1)).ab.) and ((multiplier\$1 or multiplication or multiplying or multiply) and complex and (real or re) and (imaginary or img) and 708/\$.ccls.) and (708/501,495,404,300.ccls. and complex))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/09/27 10:08
-	22741	708/\$.ccls.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/08/30 14:19
-	780	((multiplier\$1 or multiplication or multiplying or multiply) and complex and (real or re) and (imaginary or img) and 708/\$.ccls.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/08/30 14:24
-	103	((multiplier\$1 or multiplication or multiplying or multiply) and complex and (real or re) and (imaginary or img) and 708/\$.ccls.) and ((two or "2") adj (cycle\$1 or period\$1 or clock\$1))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/08/30 14:42
-	14	((multiplier\$1 or multiplication or multiplying or multiply) and complex and (real or re) and (imaginary or img) and 708/\$.ccls.) and ((two or "2") adj (cycle\$1 or period\$1 or clock\$1)) and 708/622.ccls.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/08/30 14:57
-	189	708/523,622,620.ccls. and (complex or ((real or re) and (imaginary or img)))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/08/30 14:58
-	150	(cycle\$1 or clock\$1 or period\$1) and (708/523,622,620.ccls. and (complex or ((real or re) and (imaginary or img))))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/08/30 14:59
-	42	((("2" or two) adj (cycle\$1 or clock\$1 or period\$1)) and (708/523,622,620.ccls. and (complex or ((real or re) and (imaginary or img)))))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/08/30 14:59

-	28	((("2" or two) adj (cycle\$1 or clock\$1 or period\$1)) and (708/523,622,620.ccls. and (complex or ((real or re) and (imaginary or img)))) not (((multiplier\$1 or multiplication or multiplying or multiply) and complex and (real or re) and (imaginary or img) and 708/\$.ccls.) and ((two or "2") adj (cycle\$1 or period\$1 or clock\$1))) and 708/622.ccls.)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/08/30 14:59
-	5661	((("2" or two) adj (cycle\$1 or clock\$1 or period\$1)).ti. or ((("2" or two) adj (cycle\$1 or clock\$1 or (period\$1)).clm. or ((("2" or two) adj (cycle\$1 or clock\$1 or period\$1)).ab.) and ((multiplier\$1 or multiplication or multiplying or multiply) and complex and (real or re) and (imaginary or img) and 708/\$.ccls.)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/09/27 10:07
-	9	((("2" or two) adj (cycle\$1 or clock\$1 or period\$1)).ti. or ((("2" or two) adj (cycle\$1 or clock\$1 or period\$1)).clm. or ((("2" or two) adj (cycle\$1 or clock\$1 or period\$1)).ab.) and ((multiplier\$1 or multiplication or multiplying or multiply) and complex and (real or re) and (imaginary or img) and 708/\$.ccls.)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/08/30 15:08
-	5	((("2" or two) adj (cycle\$1 or clock\$1 or period\$1)).ti. or ((("2" or two) adj (cycle\$1 or clock\$1 or period\$1)).clm. or ((("2" or two) adj (cycle\$1 or clock\$1 or period\$1)).ab.) and ((multiplier\$1 or multiplication or multiplying or multiply) and complex and (real or re) and (imaginary or img) and 708/\$.ccls.)) not (((((multiplier\$1 or multiplication or multiplying or multiply) and complex and (real or re) and (imaginary or img) and 708/\$.ccls.) and ((two or "2") adj (cycle\$1 or period\$1 or clock\$1))) and 708/622.ccls.) or ((("2" or two) adj (cycle\$1 or clock\$1 or period\$1)) and (708/523,622,620.ccls. and (complex or ((real or re) and (imaginary or img))))))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/08/30 15:06
-	198	((((cycle\$1 or clock\$1 or period\$1)).ti. or ((cycle\$1 or clock\$1 or period\$1)).clm. or ((cycle\$1 or clock\$1 or period\$1)).ab.) and ((multiplier\$1 or multiplication or multiplying or multiply) and complex and (real or re) and (imaginary or img) and 708/\$.ccls.)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/08/30 15:08
-	191	((((cycle\$1 or clock\$1 or period\$1)).ti. or ((cycle\$1 or clock\$1 or period\$1)).clm. or ((cycle\$1 or clock\$1 or period\$1)).ab.) and ((multiplier\$1 or multiplication or multiplying or multiply) and complex and (real or re) and (imaginary or img) and 708/\$.ccls.)) not (((((multiplier\$1 or multiplication or multiplying or multiply) and complex and (real or re) and (imaginary or img) and 708/\$.ccls.) and ((two or "2") adj (cycle\$1 or period\$1 or clock\$1))) and 708/622.ccls.) or ((("2" or two) adj (cycle\$1 or clock\$1 or period\$1)) and (708/523,622,620.ccls. and (complex or ((real or re) and (imaginary or img))))))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/08/30 15:08

-	186	<p> ((((cycle\$1 or clock\$1 or period\$1)).ti.  or ((cycle\$1 or clock\$1 or  period\$1)).clm. or ((cycle\$1 or clock\$1  or period\$1)).ab.) and ((multiplier\$1 or  multiplication or multiplying or  multiply) and complex and (real or re)  and (imaginary or img) and 708/\$.ccls.))  not (((((multiplier\$1 or multiplication  or multiplying or multiply) and complex  and (real or re) and (imaginary or img)  and 708/\$.ccls.) and ((two or "2") adj  (cycle\$1 or period\$1 or clock\$1))) and  708/622.ccls.) or (((("2" or two) adj  (cycle\$1 or clock\$1 or period\$1)) and  (708/523,622,620.ccls. and (complex or  ((real or re) and (imaginary or  img)))))) not (((("2" or two) adj  (cycle\$1 or clock\$1 or period\$1)).ti. or  (("2" or two) adj (cycle\$1 or clock\$1 or  period\$1)).clm. or ((("2" or two) adj  (cycle\$1 or clock\$1 or period\$1)).ab.)  and ((multiplier\$1 or multiplication or  multiplying or multiply) and complex and  (real or re) and (imaginary or img) and  708/\$.ccls.)) not (((((multiplier\$1 or  multiplication or multiplying or  multiply) and complex and (real or re)  and (imaginary or img) and 708/\$.ccls.)  and ((two or "2") adj (cycle\$1 or  period\$1 or clock\$1))) and 708/622.ccls.)  or (((("2" or two) adj (cycle\$1 or clock\$1  or period\$1)) and (708/523,622,620.ccls.  and (complex or ((real or re) and  (imaginary or img)))))) </p>	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/08/30 15:09
-	186	<p> ((((cycle\$1 or clock\$1 or  period\$1)).ti. or ((cycle\$1 or clock\$1 or  period\$1)).clm. or ((cycle\$1 or clock\$1  or period\$1)).ab.) and ((multiplier\$1 or  multiplication or multiplying or  multiply) and complex and (real or re)  and (imaginary or img) and 708/\$.ccls.))  not (((((multiplier\$1 or multiplication  or multiplying or multiply) and complex  and (real or re) and (imaginary or img)  and 708/\$.ccls.) and ((two or "2") adj  (cycle\$1 or period\$1 or clock\$1))) and  708/622.ccls.) or (((("2" or two) adj  (cycle\$1 or clock\$1 or period\$1)) and  (708/523,622,620.ccls. and (complex or  ((real or re) and (imaginary or  img)))))) not (((("2" or two) adj  (cycle\$1 or clock\$1 or period\$1)).ti. or  (("2" or two) adj (cycle\$1 or clock\$1 or  period\$1)).clm. or ((("2" or two) adj  (cycle\$1 or clock\$1 or period\$1)).ab.)  and ((multiplier\$1 or multiplication or  multiplying or multiply) and complex and  (real or re) and (imaginary or img) and  708/\$.ccls.)) not (((((multiplier\$1 or  multiplication or multiplying or  multiply) and complex and (real or re)  and (imaginary or img) and 708/\$.ccls.)  and ((two or "2") adj (cycle\$1 or  period\$1 or clock\$1))) and 708/622.ccls.)  or (((("2" or two) adj (cycle\$1 or clock\$1  or period\$1)) and (708/523,622,620.ccls.  and (complex or ((real or re) and  (imaginary or img)))))) and ("2" or  two) </p>	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/08/30 15:09

	186	<p>(((((cycle\$1 or clock\$1 or period\$1)).ti. or ((cycle\$1 or clock\$1 or period\$1)).clm. or ((cycle\$1 or clock\$1 or period\$1)).ab.) and ((multiplier\$1 or multiplication or multiplying or multiply) and complex and (real or re) and (imaginary or img) and 708/\$.ccls.)) not (((multiplier\$1 or multiplication or multiplying or multiply) and complex and (real or re) and (imaginary or img) and 708/\$.ccls.) and ((two or "2") adj (cycle\$1 or period\$1 or clock\$1))) and 708/622.ccls.) or (((("2" or two) adj (cycle\$1 or clock\$1 or period\$1)) and (708/523,622,620.ccls. and (complex or ((real or re) and (imaginary or img)))))) not (((("2" or two) adj (cycle\$1 or clock\$1 or period\$1)).ti. or ((("2" or two) adj (cycle\$1 or clock\$1 or period\$1)).clm. or ((("2" or two) adj (cycle\$1 or clock\$1 or period\$1)).ab.) and ((multiplier\$1 or multiplication or multiplying or multiply) and complex and (real or re) and (imaginary or img) and 708/\$.ccls.)) not (((multiplier\$1 or multiplication or multiplying or multiply) and complex and (real or re) and (imaginary or img) and 708/\$.ccls.) and ((two or "2") adj (cycle\$1 or period\$1 or clock\$1))) and 708/622.ccls.) or (((("2" or two) adj (cycle\$1 or clock\$1 or period\$1)) and (708/523,622,620.ccls. and (complex or ((real or re) and (imaginary or img)))))) and ("2" or two)) and complex</p>	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/08/30 15:09
	15	<p>(((((cycle\$1 or clock\$1 or period\$1)).ti. or ((cycle\$1 or clock\$1 or period\$1)).clm. or ((cycle\$1 or clock\$1 or period\$1)).ab.) and ((multiplier\$1 or multiplication or multiplying or multiply) and complex and (real or re) and (imaginary or img) and 708/\$.ccls.)) not (((multiplier\$1 or multiplication or multiplying or multiply) and complex and (real or re) and (imaginary or img) and 708/\$.ccls.) and ((two or "2") adj (cycle\$1 or period\$1 or clock\$1))) and 708/622.ccls.) or (((("2" or two) adj (cycle\$1 or clock\$1 or period\$1)) and (708/523,622,620.ccls. and (complex or ((real or re) and (imaginary or img)))))) not (((("2" or two) adj (cycle\$1 or clock\$1 or period\$1)).ti. or ((("2" or two) adj (cycle\$1 or clock\$1 or period\$1)).clm. or ((("2" or two) adj (cycle\$1 or clock\$1 or period\$1)).ab.) and ((multiplier\$1 or multiplication or multiplying or multiply) and complex and (real or re) and (imaginary or img) and 708/\$.ccls.)) not (((multiplier\$1 or multiplication or multiplying or multiply) and complex and (real or re) and (imaginary or img) and 708/\$.ccls.) and ((two or "2") adj (cycle\$1 or period\$1 or clock\$1))) and 708/622.ccls.) or (((("2" or two) adj (cycle\$1 or clock\$1 or period\$1)) and (708/523,622,620.ccls. and (complex or ((real or re) and (imaginary or img)))))) and ("2" or two)) and complex</p>	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/08/30 15:15



-	0	<p> (((((((cycle\$1 or clock\$1 or period\$1)).ti. or ((cycle\$1 or clock\$1 or period\$1)).clm. or ((cycle\$1 or clock\$1 or period\$1)).ab.) and ((multiplier\$1 or multiplication or multiplying or multiply) and complex and (real or re) and (imaginary or img) and 708/\$.ccls.)) not (((((multiplier\$1 or multiplication or multiplying or multiply) and complex and (real or re) and (imaginary or img) and 708/\$.ccls.) and ((two or "2") adj (cycle\$1 or period\$1 or clock\$1))) and 708/622.ccls.) or (((("2" or two) adj (cycle\$1 or clock\$1 or period\$1)) and (708/523,622,620.ccls. and (complex or ((real or re) and (imaginary or img)))))) not (((("2" or two) adj (cycle\$1 or clock\$1 or period\$1)).ti. or ((("2" or two) adj (cycle\$1 or clock\$1 or period\$1)).clm. or ((("2" or two) adj (cycle\$1 or clock\$1 or period\$1)).ab.) and ((multiplier\$1 or multiplication or multiplying or multiply) and complex and (real or re) and (imaginary or img) and 708/\$.ccls.)) not (((((multiplier\$1 or multiplication or multiplying or multiply) and complex and (real or re) and (imaginary or img) and 708/\$.ccls.) and ((two or "2") adj (cycle\$1 or period\$1 or clock\$1))) and 708/622.ccls.) or (((("2" or two) adj (cycle\$1 or clock\$1 or period\$1)) and (708/523,622,620.ccls. and (complex or ((real or re) and (imaginary or img)))))) and ("2" or two)) and complex) and 708/490.ccls. </p>	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/08/30 15:15
-	0	<p> (((((((cycle\$1 or clock\$1 or period\$1)).ti. or ((cycle\$1 or clock\$1 or period\$1)).clm. or ((cycle\$1 or clock\$1 or period\$1)).ab.) and ((multiplier\$1 or multiplication or multiplying or multiply) and complex and (real or re) and (imaginary or img) and 708/\$.ccls.)) not (((((multiplier\$1 or multiplication or multiplying or multiply) and complex and (real or re) and (imaginary or img) and 708/\$.ccls.) and ((two or "2") adj (cycle\$1 or period\$1 or clock\$1))) and 708/622.ccls.) or (((("2" or two) adj (cycle\$1 or clock\$1 or period\$1)) and (708/523,622,620.ccls. and (complex or ((real or re) and (imaginary or img)))))) not (((("2" or two) adj (cycle\$1 or clock\$1 or period\$1)).ti. or ((("2" or two) adj (cycle\$1 or clock\$1 or period\$1)).clm. or ((("2" or two) adj (cycle\$1 or clock\$1 or period\$1)).ab.) and ((multiplier\$1 or multiplication or multiplying or multiply) and complex and (real or re) and (imaginary or img) and 708/\$.ccls.)) not (((((multiplier\$1 or multiplication or multiplying or multiply) and complex and (real or re) and (imaginary or img) and 708/\$.ccls.) and ((two or "2") adj (cycle\$1 or period\$1 or clock\$1))) and 708/622.ccls.) or (((("2" or two) adj (cycle\$1 or clock\$1 or period\$1)) and (708/523,622,620.ccls. and (complex or ((real or re) and (imaginary or img)))))) and ("2" or two)) and complex) and 708/200.ccls. </p>	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/08/30 15:15

-	8	(((((((cycle\$1 or clock\$1 or period\$1)).ti. or ((cycle\$1 or clock\$1 or period\$1)).clm. or ((cycle\$1 or clock\$1 or period\$1)).ab.) and ((multiplier\$1 or multiplication or multiplying or multiply) and complex and (real or re) and (imaginary or img) and 708/\$.ccls.)) not (((((multiplier\$1 or multiplication or multiplying or multiply) and complex and (real or re) and (imaginary or img) and 708/\$.ccls.) and ((two or "2") adj (cycle\$1 or period\$1 or clock\$1))) and 708/622.ccls.) or (((("2" or two) adj (cycle\$1 or clock\$1 or period\$1)) and (708/523,622,620.ccls. and (complex or ((real or re) and (imaginary or img)))))) not (((("2" or two) adj (cycle\$1 or clock\$1 or period\$1)).ti. or (("2" or two) adj (cycle\$1 or clock\$1 or period\$1)).clm. or ((("2" or two) adj (cycle\$1 or clock\$1 or period\$1)).ab.) and ((multiplier\$1 or multiplication or multiplying or multiply) and complex and (real or re) and (imaginary or img) and 708/\$.ccls.)) not (((((multiplier\$1 or multiplication or multiplying or multiply) and complex and (real or re) and (imaginary or img) and 708/\$.ccls.) and ((two or "2") adj (cycle\$1 or period\$1 or clock\$1))) and 708/622.ccls.) or (((("2" or two) adj (cycle\$1 or clock\$1 or period\$1)) and (708/523,622,620.ccls. and (complex or ((real or re) and (imaginary or img)))))) and ("2" or two)) and complex) and 708/490-522.ccls. 5896543.URPN.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/08/30 15:16
-	7		USPAT	2004/08/30
-	24	("4164787"   "4439839"   "4574345"   "4641238"   "4754394"   "4800524"   "4809217"   "4908748"   "5010476"   "5056000"   "5099417"   "5151979"   "5187795"   "5274789"   "5280532"   "5317572"   "5325489"   "5361370"   "5390304"   "5404522"   "5423010"   "5438666"   "5471607"   "5608885").PN.	USPAT	15:23 2004/08/30 15:23